

**Information to Bidders and Bid Specific Additional Terms & Conditions**

**Information and Additional Terms & Conditions to Bidder for the “Procurement of Managed Layer-3 Distribution Switches”**

1. Description of Material: Supply of 19” Rack Mountable Managed Layer-3 Distribution Switches with redundant Power supply. Total Switch quantity is 4 Nos. 3 Nos. shall be with DC redundant Power Supply and 1 No shall be with AC redundant power supply.
2. The material should be supplied with all fixing material, Power Cords, Console cables & Standard accessories. Each Switch shall be provided with one Stacking Cable of 0.5 Mtr.
3. Equipment should be quoted as per Technical specification.
4. Bidder shall submit the detailed BOM of the equipment’s offered duly verified and certified by the respective OEM. The BOM shall be as per tender condition.
5. UL, CE and FCC Certification is not required for PMA. However they have to produce certificate from standard lab approved/ authorized by Govt. of India that their product are equivalent to UL,CE and FCC and meets all standard and specification of UL,CE and FCC.

**6. Technical Specification:**

**19” Rack Mountable stackable L3 Switch**

S No.	Parameters	Minimum specification	Compliance	Deviations if any
		<b>L3 Distribution Switch- Minimum 24*1G SFP + 4*10G, 2*40G &amp; 2*100G port with stacking support</b>		
1	Ports	1. Minimum 24 Port 1G SFP Based ports 2. Extra minimum 4 Uplink ports capable of 1/ 10G and 2*40G QSFP port and 2*100G port 3. All ports can auto-negotiate between all allowable speeds, half-duplex or full duplex and flow control for half-duplex ports.		
2	Power Supply	Should have redundant AC Power Supply 100 to 240 V AC with 50 to 60 Hz without any external adaptors and Should have Redundant DC Power Supply -48 to -60 VDC. Out of Total 4 Nos of quantity for L3 Distribution Switch, 3 Nos shall be DC based redundant Power Supply and balance quantity i.e. 1 No shall be AC based redundant power supply.		
3	SFPs and SFP +	The switch should support MSA compliant SFPs and SFP+s to offer interoperability with other OEMs.		
4	Stacking	The switch should have two dedicated stacking port separate from uplink ports with 100 Gbps per port of stacking bandwidth of minimum 400Gbps. Minimum 8 switches can be connected in the stack.		
5	Switch type	Layer-3		
6	MAC	The switch should support minimum 64K MAC address or more		
7	Back plane	Capable of providing wire-speed switching for fully populated switch		

8	Through put	Switch should support for minimum 600 Gbps of switching capacity & minimum 400 mbps forwarding rate, Required throughput shall have nonblocking performance for switch when all ports are populated.		
9	Port Features	Must support Port Mirroring, Port Trunking and 802.3ad LACP Link Aggregation port trunks		
10	Flow Control	Support IEEE 802.3x flow control for full-duplex mode ports.		
11	Jumbo Fra me	Should support jumbo frame. (9216 Byte)		
12	Common Protocols	<ol style="list-style-type: none"> <li>1. should have IPV4 &amp; IPV6 support from day one</li> <li>2. Support 802.1D, 802.1S, 802.1w, Rate limiting</li> <li>3. Support 802.1X Security standards</li> <li>4. Support 802.1Q VLAN encapsulation, IGMP v1, v2 and v3 snooping</li> <li>5. 802.1p Priority Queues Class of Service with weighted round Robin scheduling, DiffServ</li> <li>6. DHCP support</li> <li>7. Support MLD snooping v1/ v2</li> <li>8. Support IGMP Snooping and IGMP Querying</li> <li>9. Support Multicasting</li> <li>10. Should support Loop protection and Loop detection,</li> </ol>		
13	Access Control	<ol style="list-style-type: none"> <li>1. Support port security</li> <li>2. Support 802.1x (Port based network access control)</li> <li>3. Support for MAC filtering.</li> <li>4. Should support TACACS+ and RADIUS authentication</li> </ol>		
14	L3 Features	The Switch should have basic Layer-3 features: RIP, RIPng, OSFP, OSPFv3, PIM, VRRP, ECMP. The Switch should also having enhances IP features: BGP		
15	VLAN	<ol style="list-style-type: none"> <li>1. Support 802.1Q Tagged VLAN and port based VLANs and Private VLAN</li> <li>2. The switch must support dynamic VLAN Registration or equivalent</li> <li>3. Support for Port-based VLANs, 4000 VLANs (IEEE 802.1Q)</li> <li>4. Dynamic Trunking protocol /GARP VLAN Registration Protocol (GVRP)/MVRP or equivalent.</li> <li>5. MAC based VLANs or equivalent should have accessibility using Tenet/SSH, Console Access, easier software upgrade through network using FTP/SCP/ TFTP/SFTP etc.</li> </ol>		
16	Protocol and Traffic	<ol style="list-style-type: none"> <li>1. Network Time Protocol or equivalent Simple Network Time Protocol support</li> <li>2. Switch should support traffic segmentation</li> <li>3. Traffic classification should be based on user-definable application types: TOS, DSCP, Port based, TCP/UDP port number</li> </ol>		
17	Mana gement	<ol style="list-style-type: none"> <li>1. Switch needs to have a console port for management via a console terminal or PC</li> <li>2. Must have support SNMP v1,v2 and v3</li> <li>3. Should support 4 groups of RMON</li> <li>4. Should have accessibility web based GUI, using Telnet, SSH, Console access, easier software upgrade through network using TFTP etc.</li> <li>5. Shall support configuration management through CLI.</li> <li>6. Should support Optical Transceiver Digital Diagnostic Monitoring.</li> </ol>		

18	Resiliency	1. Redundant power supplies 2. Redundant fans 3. Two core switches shall have capability to be connected in 100% redundancy with support for 1+1 Redundant active/active configuration to avoid single point of failure in network.		
19	Temperature	1. Shall have an operating temperature range of 0 C to 45 C Degree. 2. Shall support Operating humidity: 5% to 90% non-condensing		
20	Safety Certifications	Switch should have EMI CERTIFICATE of FCC/IC and CE or equivalent Indian Standard		
		Switch should have SAFETY CERTIFICATE of UL or equivalent Indian Standard		
		Switch should have ENVIRONMENTAL of RoHS or equivalent Indian Standard		
21	Warranty	Warranty – 3 years.		
Note:- In the specification wherever support for a feature has been asked for, it will mean that the feature should be available without RailTel requiring any other hardware/software/licenses. Thus all hardware/software/licenses required for enabling the support/feature shall be included in the offer				

#### 7. Eligibility criteria for Past Performance and Experience.

The tenderer must have successfully completed any of the following during last 07 (seven) years, ending last day of month previous to the one in which tender is invited:

- 1.1 Three similar works each costing not less than the amount equal to 30% of advertised value of the tender, or
  - 1.2 Two similar works each costing not less than the amount equal to 40% of advertised value of the tender, or
  - 1.3 One similar work each costing not less than the amount equal to 60% of advertised value of the tender.
- 2.(i) In case of tenders for composite Contracts tenderer must have successfully completed any of the following during last 07 (seven) years, ending last day of month previous to the one in which tender is invited:
- 1.1 Three similar works each costing not less than the amount equal to 30% of advertised value of each component of tender, or
  - 1.2 Two similar works each costing not less than the amount equal to 40% of advertised value of each component of tender, or
  - 1.3 One similar work each costing not less than the amount equal to 60% of advertised value of each component of tender.

(Note: Separate completed works of minimum required values for each component shall also be considered for fulfillment of technical eligibility criteria).

ii) In such cases, what constitutes a component in a composite work shall be clearly pre- defined with estimated tender cost of it, as part of the tender documents without any ambiguity

iii) To evaluate the technical eligibility of tenderer, only components of work as stipulated in tender documents for evaluation of technical eligibility, shall be considered. The scope of work covered in other remaining components shall be executed by tenderer himself.

(Note: Work experience certificate from private individual shall not be considered. However, in addition to work experience certificates issued by any Govt. Organization, PSU or any reputed

TELCO, work experience certificate issued by Public listed company having average annual turnover of Rs 500 crore and above in last 3 financial years excluding the current financial year, listed on National Stock Exchange or Bombay Stock Exchange, incorporated/registered at least 5 years prior to the date of opening of tender, shall also be considered provided the work experience certificate has been issued by a person authorized by the Public listed company to issue such certificates.

In case tenderer submits work experience certificate issued by public listed company, the tenderer shall also submit along with work experience certificate, the relevant copy of work order, bill of quantities, bill wise details of payment received duly certified by Chartered Accountant, TDS certificates for all payments received and copy of final/last bill paid by company in support of above work experience certificate).

(Illustration: The Estimated Value of the Work is Rs 60,00,000/-. Hence 60% of single work is Rs 36,00,000/-. 40% of two similar work is Rs 24,00,000/- each, 30% of three similar work is Rs 18,00,000/- each. The bidders are required to submit PO for similar work along with User Certificate accordingly)

Meaning of Similar Work: "Supply of Layer-2/ Layer-3 Switches/ Routers/Transport Equipment/Servers with optical modules and other accessories"

Financial Eligibility Criteria: The tenderer must have received contractual payments in the previous three financial years and the current financial year up to the date of inviting of tender, at least 150% of the advertised value of the tender. The tenderers shall submit Certificates to this effect which may be an attested

Certificate from the concerned department / client or Audited Balance Sheet duly certified by the Chartered Accountant/Certificate from Chartered Accountant duly supported by Audited Balance Sheet.

(Note: Client certificate from other than Govt. Organization should be duly supported by Form 16A/26AS generated through TRACES of Income Tax Department of India).

The bidder should not have been blacklisted by any agency /purchaser during the past 5 years and the bidder should have positive net worth and should give an undertaking for the same.

## **8 WARRANTY:**

- 8.1 The materials are to be warranted for 36 months from date of delivery to the consignee. The tenderer shall warrant that stores to be supplied shall be new and free from all defects and faults in material, workmanship and manufacture and shall be of the highest grade and consistent with the established and generally accepted standards of materials of the type ordered and shall perform in full conformity with the specifications and drawings. The supplier shall be responsible for any defects that may develop under the conditions provided by the contract and under proper use, arising from faulty materials, design or workmanship such as corrosion, inadequate quantity of material to meet equipment requirements, inadequate contact protection, deficiencies in design and/ or otherwise and shall remedy such defects at his own cost when called upon to do so by the Purchaser who shall state in writing in what respect the stores are faulty.
- 8.2 If it becomes necessary for the contractor to replace or renew any defective portion/portions of the supplies under this clause, the provisions of the clause shall apply to the portion/portions of the equipment so replaced or renewed or until the end of the above mentioned period of 36 months, whichever may be later, If any defect is not remedied within a reasonable time, the Purchaser may proceed to do the work at the contractor's risk and expenses, but without prejudice to any other rights which the Purchaser may have against the contractor in respect of such defects.
- 8.3 Replacement under warranty clause shall be made by the contractor free of all charges at site including freight, insurance and other incidental charges.

Replacement Services During warranty period, if the Bidder fails to replace /Equipment card/Part in next business day, the following penalties will be imposed.

Equipment	Duration of repair	Deduction/Penalties
All Modules and accessories	More than 1 day and up to 7 days	2% of the cost of the affected part/module
All Modules and accessories	More than 7 days and up to 15 days	10% of the cost of the affected part/module
All Modules and accessories	More than 16 days and up to 30 days	25% of the cost of ther affected part/module
All Modules and accessories	More than 30 days	100% of the cost of affected part/module

9. **Option Clause-**

The Purchaser reserves the right to increase the quantity to be ordered up to 50 percent of bid quantity at the time of placement of contract and during the currency of the contract at the following rates. Bidders are bound to accept the orders accordingly. The Rates shall remain same for variation of quantity up to 125% of quantity. The variation of quantity above 125% to 140% will be 2% rebate. The variation of quantity above 140% to 150% will be 4% rebate.

10. The Bidder shall provide Bid Specific MAF as per annexure-I.
11. The Bidder & OEM shall provide specific compliance to GeM GTC Clause No 26.

**Annexure-I**

**Executive Director,  
Eastern Region,  
RailTel Corporation of India Ltd.**

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**Subject: Manufacturer Authorisation form (MAF) to M/s ..... for .....**

**Ref: GeM Bid No. GEM/2023/B/3819159 dated:11.08.2023**

Dear Sir,

We, M/s....., are established and reputed manufacturer and service provider of .....(Provision of battery & charger details), having our registered office at .....

We hereby authorise M/s ..... (bidder name), Office ..... to participate in bid and subsequently upon award of the bid to execute the supply and Installation & Commissioning of our range of products against your above said bid.

We further extend our warranty for ..... years for our range of products offered by M/s .....against the above-said bid.

Thanking you,

Best regards,

**Authorised Signatory**